

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK**

CENTER FOR BIOLOGICAL DIVERSITY, *et al.*,

Plaintiffs,

v.

U.S. FISH AND WILDLIFE SERVICE, *et al.*,

Defendants.

21 Civ. 5706 (LJL)

**PLAINTIFFS' REPLY BRIEF IN SUPPORT OF MOTION FOR SUMMARY
JUDGMENT AND IN OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY
JUDGMENT**

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ARGUMENT

I. Defendants Repeatedly Mischaracterize Plaintiffs’ Arguments, Which Are Grounded in Basic APA Standard of Review Principles.

From the first page of their brief, Defendants inaccurately portray Plaintiffs’ arguments as a misguided quest to convince the Court to substitute its own judgment in place of the U.S. Fish and Wildlife Service (“FWS”). *See, e.g.*, Defs.’ Br. at 1 (arguing “[c]ontrary to Plaintiffs’ efforts to impose their judgment”); p. 2 (“[T]he Court should reject Plaintiffs’ attempts to usurp FWS’s role”); p. 17 (This “Court should not substitute its judgment—or Plaintiffs’ judgment—for that of the agency.”); p. 17 (“Plaintiffs here may disagree with FWS’s determination . . . , but mere disagreement with FWS’s decision is insufficient to set aside its determination.”); p. 24 (Plaintiffs “aim to substitute their subjective judgment for that of the agency that has particular expertise.”); p. 28 (“Plaintiffs cannot . . . second-guess the agency’s decision because of a disagreement in judgment with the agency and its experts as to the ‘most-likely’ scenarios.”).

Plaintiffs present no such arguments. Instead, as detailed in Plaintiffs’ opening brief, FWS ran afoul of basic Administrative Procedure Act (“APA”) principles because it failed to articulate a rational, legal basis for the listing denial, ignored or characterized the agency’s own conclusions, failed to reconcile or explain conflicting information, and made assumptions counter to the evidence before the agency. *NRDC v. United States EPA*, 658 F.3d 200, 215 (2nd Cir. 2011); *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).¹ Plaintiffs ask the Court not to impose its own judgment on FWS, but to instead declare the agency’s decision to be arbitrary and capricious, vacate the decision, and remand it back to

¹ Unless otherwise noted, internal citations and quotations are omitted from caselaw citations.

FWS to make a new determination based on reasoned decision-making within an expeditious timeframe.

II. Defendants Overstate the Deference Owed to FWS's Decision.

While Defendants repeatedly lean on FWS's technical expertise (Defs.' Br. at 1, 15, 17, 23, 24), "[d]eference does not mean acquiescence." *Presley v. Etowah County Comm'n*, 502 U.S. 491, 508 (1992). Accordingly, "courts retain a role, and an important one, in ensuring that agencies have engaged in reasoned decision-making." *Judulang v. Holder*, 565 U.S. 42, 53 (2011). A reviewing court's inquiry must still be "searching and careful" and "reveal a rational connection between the facts found and the choice made." *NRDC v. FAA*, 564 F.3d 549, 555 (2nd Cir. 2009). In addition, "the presumption of agency expertise may be rebutted if its decisions, even though based on scientific expertise, are not reasoned." *Defs. of Wildlife v. Babbitt*, 958 F. Supp. 670, 679 (D.D.C. 1997) (*citing Alltel. Corp. v. FCC*, 838 F.2d 551, 562 (D.C. Cir. 1988)).

Here, the agency has provided little explanation for its decision, and the scant, flimsy explanation that is provided deserves no deference. For unexplained reasons, FWS did not prepare, as its usual practice, a Statement of Findings supporting its denial of protections to the eastern hellbender. While Defendants trumpet FWS's "careful summary" of its rationale "in a 15-page, duly promulgated Federal Register notice," Defs.' Br. at 16, the agency's *Findings* concerning the basis for its decision encompass little more than a page. The agency's Findings are so sparse that Defendants often improperly cite the Species Status Assessment Report ("SSA") as "findings" in their brief, *e.g.*, Defs.' Br. at 28 (stating that the "SSA report is an effort to make reasonable decisions in the face of inherent uncertainty"), even though the SSA Report provides only a compilation of science and does not articulate the connection between the facts

found and the decision FWS made. The court “may not supply a reasoned basis for the agency’s actions that the agency itself has not given, because agency action may only be upheld, if at all, on the basis articulated by the agency itself.” *New York v. United States HHS*, 414 F. Supp. 3d 475, 540 (S.D.N.Y. 2019) (quoting *State Farm*, 463 U.S. at 43, 50). As detailed in Plaintiffs’ opening brief, and further below, the cursory Findings that FWS did make in support of its decision were arbitrary and capricious in numerous respects.

III. FWS’s Decision Ignored or Mischaracterized the “Reasonable Worst Plausible” Scenario.

FWS’s determination denying Endangered Species Act (“ESA”) protections to the eastern hellbender is largely comprised of a summary of the SSA and its three future scenarios—“reasonable best plausible” (“RBP”), “reasonable worst plausible” (“RWP”), and “most likely” (“ML”). AR 6. As detailed in Plaintiffs’ opening brief, this reliance was arbitrary in at least two significant respects: 1) FWS failed to rationally explain how it reached its decision in relation to the particularly dire predictions made under the RWP scenario; and 2) the RBP scenario is based on false assumptions, which in turn, renders the “Most Likely” findings—and the Service’s ESA denial decision based on those findings—arbitrary and capricious. Plfs.’ Br. at 19-26.

Instead of responding directly, Defendants’ brief mischaracterizes Plaintiffs’ argument. Plaintiffs’ opening brief in no way “appear[s] to suggest that FWS must only rely on the RWP scenario and based on that scenario, conclude that the eastern hellbender is in danger of extinction throughout its range.” Defs.’ Br. at 24. Similarly, Plaintiffs do not seek to compel FWS’s “sole” reliance on the RWP. *Id.* And Plaintiffs “have not provided any support of [the] assertion that FWS must find the species to be endangered or threatened based on the RWP in and of itself, as opposed to the ‘most likely’ scenario,” because Plaintiffs have made no such argument. *Id.*

Instead, consistent with the APA arbitrary and capricious standard of review, Plaintiffs' opening brief argued that FWS did not adequately explain its determination in light of the conclusions of that scenario and erred by *ignoring or mischaracterizing* the RWP in its decision. Plfs.' Br. at 19-23. For example, in the not-warranted Finding FWS ignored the RWP predictions regarding likely extinction of the species across its range under the SSA catastrophic events analysis. *See* Plfs.' Br. at 22-23. Although Defendants' counsel asserts that "it is the confluence of RWP, RBP, ML, and the experts' degree of confidence that forms the basis for evaluation," Defs.' Br. at 26, FWS's Findings make no mention of such "confluence." Indeed, the Findings do not mention *any* of the scenarios, but instead state only that "the predicted persistence of healthy populations across multiple [adaptive capacity units ("ACUs")] provides redundancy, resiliency, and representation." AR 6.

Defendants also fundamentally err by characterizing Plaintiffs' argument as a "focus on outlier scenarios." Defs.' Br. at 24. As an initial matter, Defendants contradict their own argument when observing that FWS found the "Most Likely" scenario "lay closer to the RWP scenario" for two hellbender ACUs. Defs.' Br. at 12. Indeed, the RWP is one of only three primary future scenarios considered in the SSA. As the SSA Team explained to FWS decisionmakers (and reflected by the scenario names), the range between the "reasonable worst plausible" and "reasonable best plausible" future scenarios "represents all reasonable, plausible outcomes." AR 198. Under this approach, even the label "Most Likely" is a misnomer, because the chance of it is occurring "is very low relative to all of the reasonable, plausible outcomes." AR 198. Far from being an "outlier," a future in which the "reasonable worst" outcome occurs is just as plausible (or likely) as any other future scenario within the identified range between the RWP and RBP scenarios.

The evidence before the agency, in fact, strongly indicates that the likelihood of the RWP scenario occurring is *higher* than the other scenarios given the numerous threats facing the species and the lack of any formalized conservation efforts or meaningful regulatory mechanisms to abate those threats and help stem the species' current "drastic" decline. AR 200 ("While sedimentation and water quality are consistently the primary stressors acting on Eastern Hellbender populations in each of the ACUs, there are many other stressors acting singly or synergistically currently, and they are predicted to continue into the future."). In contrast, as discussed *infra* in Section IV, the RBP scenario is based on future actions that are speculative and uncertain. AR 200 ("Conservation efforts are being informally implemented in many states, but the effectiveness of those efforts and the likelihood of long-term continuation has not been evaluated to date.").

Accordingly, in determining that the eastern hellbender does not warrant listing, FWS was obligated to address the RWP scenario, because the likelihood of the RWP scenario occurring is, according to FWS, an equally plausible future outcome as the RBP and Most Likely scenarios. As Defendants acknowledge, "under the RWP . . . it is likely the populations are extirpated in all four ACUs, and the species [will go] extinct on account of a catastrophic event," Defs.' Br. at 25, yet FWS provided no explanation on the record of how it concluded listing was not warranted given this plausible extinction-level event. Plaintiffs agree with Defendants that "the goal is not simply to devise a reasonable worst plausible scenario and deem it a certain eventuality," Defs.' Br. at 26, but in this case FWS decisionmakers simply failed to explain how the agency reached its not-warranted determination given that it is an equally plausible outcome. *See Defs. of Wildlife*, 958 F. Supp. at 680 (ESA requires preventive action to protect species be

taken “sooner rather than later By heeding the warnings of possible extinction today, we will prevent tomorrow’s crisis.”).

IV. The “Reasonable Best Plausible” Scenario Arbitrarily Relied on Uncertain, Unproven, and Speculative Conservation Measures, Which in Turn Rendered the “Most Likely” Scenario Arbitrary.

As detailed in Plaintiffs’ opening brief, although 10 of the 11 influences considered in the SSA are comprised of the many various negative stressors on the species, the SSA’s RBP scenario arbitrarily relied on the sole positive influence—augmentation and conservation efforts—to predict the halt and reversal of hellbender population declines, resulting in population numbers sufficient to make ESA listing unwarranted. Plfs.’ Br. at 23-25; *see, e.g.*, AR 134 (predicting 179 healthy populations under RBP in 10 years, compared to an estimated 127 populations currently considered healthy). This reliance resulted in a wide disparity between the RWP and RBP projections. For example, the SSA predicts that only 61 healthy populations across the eastern hellbender’s range will persist under the RWP scenario in 10 years, compared to 179 healthy populations (nearly triple) under the RBP. AR 134. The SSA makes even more wildly varying predictions with respect to the Ohio River ACU, with 16 healthy populations predicted in 10 years under the RWP scenario compared with 84 healthy populations (more than five times) under the RBP scenario. AR 134.

As the SSA states, “the underlying premises” of the future scenarios are “notable.” AR 148. For the RWP scenario, FWS simply had to make the reasonable assumption (in the absence of any evidence to the contrary) that “the current state conditions continue to degrade Eastern Hellbender populations.” *Id.* In sharp contrast, “for the high-end estimates [of the RBP scenario] to occur,” FWS lists *three* significant changes that must take place: “currently undisturbed populations must remain unaltered, stressors are ameliorated at currently declining sites, and

augmentation efforts are successful and widespread.” *Id.* None of these conditions are currently being met now or are projected to be met in the future. The agency admits repeatedly throughout the record and in the decision itself that “[l]ittle data exist that provide evidence of reduced negative influences, such as sedimentation, water quality, degradation and improved stream conditions, over the next 25 years.” *Id.*; AR 7. Furthermore, Defendants concede in their brief that the success of augmentation efforts is unproven. Defs.’ Br. at 10 (conceding that “the long-term success of reintroductions [is] unknown”), 27 (conceding that for nest boxes, “the survival data on the resulting offspring is unknown”).

Despite acknowledging the lack of evidence supporting the RBP scenario predictions, the SSA nonetheless concludes that the “Most Likely” scenario is “neither skewed towards the RBP nor RWP scenario.” AR 147. This conclusion provides a substantial part of the basis for FWS’s decision to deny protections. FWS predicts, for example, that under the “Most Likely” scenario there will be 119 healthy populations rangewide remaining in 10 years—only 8 fewer healthy populations than currently exist, and that there will be 51 healthy populations in the Ohio River ACU—nearly a dozen more than currently exists. AR 134.

Plaintiffs’ opening brief detailed some of the extensive record evidence describing the specific actions necessary to meet the RBP future scenario predictions in states including North Carolina, Tennessee, Alabama, Indiana, New York, Ohio, and Pennsylvania, including aggressive habitat restoration and riparian reforestation, restricting livestock access to streams, and population augmentation. Plfs.’ Br. at 24-25. Defendants mischaracterize this summary as “cherry-picking,” yet provide no countervailing record evidence of their own. Defs.’ Br. at 27.

Defendants also attempt to recast Plaintiffs’ argument, stating without reference that “the real question is whether the conservation programs are currently operational, *i.e.*, whether they

exist *or are promised to be operational*.” Defs.’ Br. at 27 (emphasis added). The caselaw is clear, however, that FWS cannot rely on mere promises of future conservation actions in denying ESA protections. *If* FWS “finds that a conservation effort is sufficiently certain to be implemented and effective so as to have contributed to the elimination or adequate reduction of one or more threats to the species,” *only then* may it “find that a species need not be listed.” *Survivors v. United States DOI*, 321 F. Supp. 3d 1011, 1021-22 (N.D. Cal. 2018); *see also Fed’n of Fly Fishers v. Daley*, 131 F. Supp. 2d 1158, 1165 (N.D. Cal. 2000) (reliance on prospective measures set forth in conservation agreement is “inconsistent with the aggressive preventive posture of the ESA” because “[t]here are no assurances that the measures will be carried out, when they will be carried out, or whether they will be effective in eliminating the threats to the species.”); *Or. Nat. Res. Council v. Daley*, 6 F. Supp. 2d 1139, 1155 (D. Or. 1998) (noting that regulatory mechanisms require “some method of enforcing compliance.”).

With respect to augmentation, Defendants’ counsel makes additional post hoc assertions that are directly contradicted by the record. Defs.’ Br. at 27 (asserting augmentation is “increasing the wild population”). As the SSA passages cited by Defendants’ response brief reflect, there is not yet evidence of *any* successful efforts. AR 127 (“[T]he survival of fertilized eggs and larvae from these nest boxes is unknown”); *Id.* (“The overall benefit of [unspecified] habitat restoration, management, and preservation rangewide is unknown.”); AR 128 (“We have no data on whether released individuals have or can successfully reproduce, or the survival rates of any resulting offspring.”). FWS’s reliance on the potential, uncertain future effect of augmentation was thus arbitrary. *Ctr. for Biological Diversity v. BLM*, 422 F. Supp. 2d 1115, 1133 n. 15 (N.D. Cal. 2006) (“[T]o allow [FWS] to make a critical assumption when the scientific data is unclear or simply not available ‘would eviscerate Congress’ intent to give the

benefit of the doubt to the species.’’)) (quoting *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1998)).

Finally, Defendants state that “[t]he entirety of the SSA report is an effort to make reasonable decisions in the face of inherent uncertainty,” and that “surely Plaintiffs would argue that FWS acted arbitrarily and capriciously were it not to consider uncertainty at all.” Defs.’ Br. at 28. Defendants’ argument falls flat in two respects.

First, the SSA “does not result in a decision directly,” but is instead intended to provide a “biological risk assessment” and “the best available scientific information for comparison to policy standards to guide ESA decisions.” *See Ctr. for Biological Diversity v. Haaland*, 998 F.3d 1061, 1068 (9th Cir. 2021) (An SSA “does not purport to be a decision document; it provides information but does not explain [FWS’s] reasons” for its decision.); *see also* AR 81 (describing the SSA as “a concise review of the species’ biology,” threats and resource needs).

Second, FWS cannot use uncertainty as a basis for denying protections. Instead, FWS “must rationally explain why the uncertainty . . . counsels in favor” of denying protections because “[o]therwise, we might as well be deferring to a coin flip.” *Greater Yellowstone Coal. v. Servheen*, 665 F.3d 1015, 1028 (9th Cir. 2011) (citing *State Farm*, 463 U.S. at 52); *Ctr. for Biological Diversity v. Zinke*, 900 F.3d 1053, 1073 (9th Cir. 2018) (holding a not-warranted finding unlawful where “FWS did not explain how uncertainty . . . justifies not listing [the species] as opposed to taking another course of action,” which may have been “particularly prudent given the ESA’s policy of institutionalized caution”).

V. FWS Arbitrarily Concluded That the Eastern Hellbender Is Not Endangered or Threatened in a Significant Portion of Its Range.

By directing FWS to list species that are endangered in all *or a significant portion* of their range (“SPR”), “Congress consciously moved away from the weaker predecessor statutes” and

the “new definition’s expansion to include species in danger of extinction ‘in any portion of its range’ represented a significant shift in the definition [from previous law] which consider[ed] a species to be endangered only when it is threatened with worldwide extinction.” *Nat’l Wildlife Fed’n v. Norton*, 386 F. Supp. 2d 553, 566 (D. Vt. 2005); H.R. Rep. No. 41293 (1973). FWS has, however, repeatedly enacted policies directly counter to this plainly articulated statutory direction.

In 2011, the Ninth Circuit struck down FWS policy stating that a portion of a species’ range was significant only if threats to that portion would put the entire species in danger of extinction. The court rejected this attempt to collapse two distinct statutory standards, finding FWS’s interpretation as a “redundant reading” that “has the effect of rendering the [significant portion of range] phrase superfluous.” *Def. of Wildlife v. Norton*, 258 F.3d 1136, 1141-42 (9th Cir. 2001).

In 2014, FWS again adopted policy equating the two standards, defining a “significant portion of range” as one for which the “contribution to the viability of the species is so important that, without the members in that portion, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range.” 79 Fed. Reg. 37,578, at 37,609 (July 1, 2014). This policy was again struck down by two courts. *Survivors*, 321 F. Supp. 3d at 1074; *Ctr. for Biological Diversity v. Jewell*, 248 F. Supp. 3d 946 (D. Ariz. 2017). As summarized in *Center for Biological Diversity v. Jewell*:

“The Final SPR Policy’s requirement that a portion of a species’ range can be considered significant only ‘if the species is not currently endangered or threatened throughout all of its range,’ . . . —far from ensuring that the ‘significant’ and ‘all’ language of the ESA will retain independent meaning—actually ensures that a portion of a species’ range will never be considered significant based on accurate application of the Final SPR Policy.”

248 F. Supp. 3d at 956-57. The Court concluded that “it appears that [FWS’s] goal in creating the Final SPR Policy was to give as little substantive effects as possible to the SPR language of the ESA in order to avoid providing range-wide protection to a species based on threats in a portion of the species’ range.” *Id.* at 958.

Plaintiffs’ opening brief detailed how FWS’s decision for the eastern hellbender continues the agency’s decades-long refusal to give the statutory significant portion of range language independent meaning. Plfs.’ Br. at 32-33. In the absence of current policy or regulation defining the SPR phrase, FWS “identif[ied] portions that may be significant by looking for portions of the species’ range that could be significant under any reasonable definition of ‘significant.’” AR 9. Guided by this standardless and circular lodestar, and using the four ACUs as the “portions” considered, FWS determined that despite the loss of two of the four ACUs, the remaining two ACUs “would still leave sufficient resiliency, redundancy, and representation” such that “it would not notably reduce the viability of the species.” Defs.’ Br. at 30 (quoting AR 9). In other words, FWS determined the eastern hellbender is not endangered (or threatened) in a significant portion of its range based on the same repeatedly rejected rationale that this loss of two of the four ACUs will not put the *entire* species in danger of extinction. *See* Defs.’ Br. at 22, 30 (conceding that FWS determined “significance” based on whether the portion would “noticeably reduce the viability of the [species] as a whole”).

FWS’s attempted reliance on the “three Rs” (resiliency, redundancy, and representation) for its SPR analysis has already been found unlawful too. As explained in *Defenders of Wildlife v. U.S. Fish & Wildlife Service*:

“[FWS’s] argument does not address the fact that the significance standard provides no threshold for determining what makes any one of the factors of resiliency, representation, and redundancy ‘meaningful’ such that the population could be considered ‘significant’ . . . Because [FWS] has not provided any threshold for meaningfulness, the Court cannot

assess whether [FWS’s] interpretation gives independent meaning to the phrase [SPR] or has again implemented an interpretation that renders it redundant or superfluous.”

584 F. Supp. 3d 812, 828 (N.D. Cal. 2022).

In addition to yet again unlawfully reading the significant portion of range requirement out of the statute, Plaintiffs’ opening brief also explained how FWS’s finding was unreasonable in light of the significant genetic distinction between the four ACUs. These divergences may be millions of years old, and Hime et al. (2016) (the primary study FWS relied upon when delineating the ACUs) made a preliminary determination that each ACU is in fact comprised of distinct species. AR 6574. As stated in the SSA, “[l]oss of these units will lead to reductions in genetic and ecological diversity . . . render[ing the] Eastern Hellbender less able to adapt to novel changes . . . in its environment.” AR 78.

In their response brief, Defendants attempt to latch onto proclaimed uncertainty regarding this taxonomic question as support for FWS’s finding. Defs.’ Br. at 29 (arguing that “[t]he record simply does not support [the] assertion” that the ACUs “will likely soon” be recognized as separate species”). Defendants’ objection is off target: the authors of Hime et al. (2016) state that “our *most conservative estimate* is the *Cryptobranchus* contains *at least* five distinct species, which are each on their own evolutionary trajectories, which are effectively reproductively isolated and no longer exchange genes, and which each have smaller . . . population sizes than current estimates for the eastern hellbender as a single species.” AR 6574; AR 216, 247 (maps depicting the “4 evolutionary distinct lineages”).

More fundamentally, Defendants mischaracterize Plaintiffs’ argument that, irrespective of taxonomic classification, FWS’s decision was contrary to record evidence demonstrating the *genetic* significance of each ACU. A similar disregard for genetic distinctiveness was found unlawful in *Desert Survivors v. United States DOI*, No. 20-cv-6787, 2022 U.S. Dist. LEXIS

87794, 2022 WL 1539530, at *31-34 (N.D. Cal. May 16, 2022). In that case, FWS divided the population of bi-state grouse into six “population management units” (“PMU”), and then concluded that the projected loss of two of those six PMUs did not constitute a significant portion of the species’ range. *Id.* at *2-3. The court found the agency’s determination unlawful, explaining that “[a]fter finding substantial information that the Pine Nut and White Mountains PMUs are portions where the bi-state grouse is likely to become in danger of extinction, [FWS] did not provide a rational basis for its determination that the two portions are not significant.” *Id.* at *31-32. Similarly here, after finding substantial information indicating that the Missouri and Kanawha River ACUs are portions of range where the eastern hellbender is likely to become in danger of extinction, FWS did not provide a rational basis for its determination that the two portions are not significant. *Id.* at *34 (“[FWS] conceded that the Pine Nut and White Mountains PMUs have unique genetic characteristics, but simply dismissed that diversity.”).

Defendants’ attempt to dismiss the significance of the Missouri and Kanawha River ACUs on their relatively small size should also be rejected. Defs.’ Br. at 21 (stating that the two ACUs are “considerably smaller in geographic scope than” the other two ACUs, “representing . . . approximately 10% of the populations range wide”).² Dismissing the populations’ significance solely based on the small size of those populations is arbitrary. *Ctr. for Biological Diversity v. Zinke*, 868 F.3d 1054, 1062 (9th Cir. 2017) (rejecting conclusion that desert eagle

² Defendants argue that “the reasonableness of FWS’s determination is further bolstered by its more nuanced conclusion” to separately list the Missouri DPS as an endangered species. Defs.’ Br. at 22. To the contrary, FWS’s decision to list the Missouri DPS only highlights there was no rational basis for not listing the species throughout its range. See *Friends of the Wild Swan v. United States Fish & Wildlife Serv.*, 12 F. Supp. 2d 1121, 1133 (D. Or. 1997) (“[L]isting of population segments is a proactive measure to *prevent* the need for listing a species over a larger range—not a tactic for subdividing a larger population that [FWS] has already determined, on the same information, warrants listing throughout a larger range.” (emphasis in original)).

population segment not significant based on reasoning that it “represents much less than one half of a percent of the number of breeding pairs throughout the range of the species”).

Finally, in response to Plaintiffs’ argument that the SPR analysis should have also considered a state-level analysis, Defendants argue that FWS’s consideration of SPR solely through the ACU lens is entitled to deference because range “may be divided into portions in an infinite number of ways.” Defs.’ Br. at 21. Here, however, FWS’s decision to view SPR solely through the ACU lens was unreasonable because, standing alone, it is an overly course filter. Relying solely on ACU alone, for example, FWS did not ever ask whether the potential loss of 90 percent of historic populations constitutes a SPR. *See, e.g., Desert Survivors*, 2022 U.S. Dist. LEXIS 87794, 2022 WL 1539530, at * 35 (“A piecemeal approach runs the risk of underestimating significance because the loss of multiple somewhat significant subpopulations may well result to a loss of great significance. Accordingly, that approach requires a meaningful explanation.”).

Defendants’ overly dramatic fear of “infinite” SPR configurations holds little water given the overwhelming record evidence discussing eastern hellbender population data and management at the state level. *See, e.g.,* AR 130 (presenting influences on the species by state), 173–77 (appendix to SSA depicting species predictions by state), 184 & 186 (expert elicitation results by state), 189–97 (appendix to the expert elicitation document showing “expert-specific judgments” by state). Moreover, consideration of potential state-level extirpations as part of the SPR analysis is imminently logical considering the specific substantive and procedural role that the ESA puts on state efforts during the listing process. 16 U.S.C. § 1533(b)(1)(A) (requiring that FWS account for conservation measures undertaken by the state as basis for listing determinations); *id.* § 1533(b)(1)(B)(ii) (requiring that FWS consider species identified as in

danger of extinction by any state agency); *id.* § 1533(b)(5)(A)(ii) (requiring that FWS give notice regarding any listing determination to the state agency in each state in which the species is believed to occur); *see also id.* § 1535 (Section 6—Cooperation with the States). It makes little sense that the ESA would require FWS to specifically consider state management and consult with state agencies during the Section 4 listing process but simultaneously permit FWS to ignore projected state-level extirpations in making its listing determinations.

The eastern hellbender’s historic range included fifteen states. FWS predicts extirpation from as many as nine of those states: Alabama, Illinois, Indiana, Maryland, Mississippi, New York, Ohio, Tennessee, and Virginia. AR 776. Does the projected disappearance of the eastern hellbender (in the absence of ESA protections) in the State of New York represent the loss of a significant portion of its range? What about the loss of hellbenders in New York and Maryland together? What about the loss of hellbenders from all nine states? FWS’s failure to even ask the question of whether these losses constitute an SPR—and then rationally explain why it is not—was arbitrary.

V. FWS Had a Statutory Duty to Consider the Adequacy of Existing Regulatory Mechanisms.

“The plain language of the [ESA] instructs [FWS] to consider ‘existing regulatory mechanisms.’” *Sw. Ctr. for Biological Diversity v. Babbitt*, 939 F. Supp. 49, 52 (D.D.C. 1996); *see also Greater Yellowstone Coal.*, 665 F.3d at 1030 (“The ESA’s five-factor listing and delisting framework . . . requires [FWS] to determine whether a species is threatened because of ‘the inadequacy of regulatory mechanisms.’”) (each quoting 16 U.S.C. § 1533(a)(1)(D)). A threat from any one factor mandates ESA protection. *Crow Indian Tribe v. United States*, 965 F.3d 662, 679-680 (9th Cir. 2020). While these regulatory mechanisms “need not necessarily be

legally binding, courts must review the mechanisms' purported adequacy to see 'if they work.'" *Defs. of Wildlife*, 584 F. Supp. 3d at 830 (quoting *Crow Indian Tribe*, 965 F.3d at 680).

In their response brief, Defendants acknowledge that "the decisional document did not expressly mention laws, regulations, or ordinances," but argue that "it is clear from the SSA report . . . that FWS did consider this factor as part of its overall analysis." Defs.' Br. at 32 (no explanation in decision because was not considered one of the "most influential factors").

While Plaintiffs do not dispute the SSA's inclusion in the "whole record," the SSA is not a decisional document (as addressed in Section IV, *supra*). Instead, the SSA's information is intended as a scientific basis to assist FWS in making its decisions, including its determination as to whether there are adequate regulatory mechanisms to protect against existing and future threats. Even if FWS could rely solely on the SSA discussion, its passing mention of state and federal laws does not pass legal muster. In meeting this mandate, "[m]erely compiling a list of potentially applicable statutes and regulations is not sufficient." *Greater Yellowstone Coal.*, 665 F.3d at 1036 (Thomas, J. dissent). Instead, FWS "must explain why [relevant] laws and regulations constitute adequate regulatory mechanisms for [species] protection." *Id.* (citing *State Farm*, 463 U.S. at 43).

In any event, the SSA's list is woefully incomplete. Both the cited measures (state laws and the federal Lacey Act) do not directly address the primary threats faced by the species, which largely arise from habitat destruction and associated water quality degradation. Despite its direct statutory duty, FWS made no effort to examine whether existing laws address each of the 10 negative influences used to guide the future scenario analysis. *Carlton v. Babbitt*, 900 F. Supp. 526, 533 (D.D.C. 1995) ("[I]f upon further review the FWS determines that the main limiting factor to the grizzly's recovery, human-caused mortality, has not been addressed by the

current regulatory mechanisms, the FWS will have to offer a more adequate explanation from the record to support its finding that regulatory mechanisms are adequate.”) (citing 16 U.S.C. § 1533(a)(1)(D)); *cf. Ctr. for Biological Diversity v. United States Fish & Wild-Life Serv.*, 402 F. Supp. 2d 1198, 1219 (D. Or. 2005) (upholding analysis where “FWS devote[d] five pages . . . to its analysis of existing regulatory mechanisms,” including “long discussions of federal [and state] land management practices; dredge, fill, and inwater construction programs; water quality programs; and hatchery management”).

VI. FWS’s Limitation of the Threatened Species Foreseeable Future Analysis to 25 Years Was Arbitrary.

In addition to the previous arguments, which pertain to FWS’s determination of whether the eastern hellbender is endangered or threatened throughout all or a significant portion of its range, Plaintiffs’ opening brief also detailed how FWS erred in its definition of foreseeable future, which is relevant only to the issue of whether the hellbender is a threatened species. The Act defines a threatened species as “any species which is likely to become an endangered species within the *foreseeable future*.” 16 U.S.C. § 1532(20) (emphasis added).

As Plaintiffs explained in their opening brief, the “boundary of the foreseeable future” analysis is generally “based upon the best data available for a particular species and its habitat.” *Ak. Oil & Gas Ass’n v. Pritzner*, 840 F.3d 671, 681 (9th Cir. 2016). Here, expert feedback during the expert elicitation process expressly notes the feasibility and importance of looking beyond the 25-year time frame, and how truncating the analysis at that threshold would offer an inaccurate portrayal of the species’ threatened status:

“Given the 30+ year life span of Eastern Hellbenders, we would not predict a large change in the number of extant populations between the 10- and 25-year time periods. The response to impacts (especially chronic effects) will be more fully realized after 1 to 2 generations following the impact. Thus, it is most appropriate to look at time frames of

25 years or longer to discern trends. Given the magnitude of increase in threats and the long life span, continued impacts to populations beyond 25 years are foreseeable.”

AR 200. The expert elicitation document contains additional, ACU-specific references to foreseeable future projections beyond 25 years. AR 203 (“As the declining trend is predicted to continue under both the RWP and RBP scenarios, similar trends are foreseeable beyond 25 years” in the Kanawha River ACU.); AR 205 (Due to “[c]limate change influences coupled with the predicted magnitude of increase in threats and the species’ long life span, continued impacts to populations beyond 25 years are foreseeable” in the Tennessee River ACU.).

Despite these numerous and specific references to a foreseeable future beyond 25 years, FWS provided no acknowledgment of those references in its decision. Instead, FWS’s “explanation” consists of a single sentence stating that predictions of the hellbender’s “response to threats, based on elicitation of species’ experts, are reasonably reliable out to 25 years; therefore, we have concluded that 25 years is the foreseeable future.” AR 8. FWS’s decision is directly counter to the evidence before the agency, but the agency did not even acknowledge the contrary expert statements. FWS’s decision to use the 25-year time frame was thus neither “justifiable” nor “clearly articulated.” *cf. In re Polar Bear ESA Listing & Section 4(d) Rule Litig.*, 709 F.3d 1, 116 (D.C. Cir. 2013).³

Defendants ignore the bulk of Plaintiffs’ arguments and mischaracterize the one argument their brief does attempt to address. Plaintiffs did not argue that 2007 eastern hellbender *Vortex* model that was used to predict population viability out to 75 years in the future is the best

³ While Defendants’ counsel muses about the contrast between human and cicada lifespans, offers his own opinion that the two concepts of generations and lifespans are distinct, and concludes that “[t]hus, 25 years represents 4 to 5 generations of hellbenders,” Defs.’ Br. at p. 30 n. 11, the record reflects that FWS and the experts treated the two concepts as synonymous, AR 148 (“The experts’ judgments were 25-year predictions, which represent 1 generation.”).

available scientific information, Defs.’ Br. at 30, as that term is used under the ESA, but instead that Defendants arbitrarily ignored the existence of that model. Plfs.’ Br. at 35. The *Vortex* model shows that 10 years prior, eastern hellbender experts utilized a much longer foreseeable future timeframe than the 25-year timeframe used in its decision, because they used a quantitative modeling approach. AR 5318. Here, FWS asked experts to take a crystal-ball approach in which they made subjective predictions about what future threats may look like. It is unsurprising that the experts were uncomfortable making predictions beyond 25 years. As experts in biology and genetics, they are no better equipped than the rest of us to foresee the future when it comes to predicting the magnitude of complex threats like sedimentation, water pollution, and climate change.

While dismissing the significance of the *Vortex* modeling effort, Defendants also argue that “[f]ar from ignoring the previous modeling efforts, FWS engaged an expert with experience in modeling, acknowledged the past efforts to model, and took into account that very expert’s 50-year prediction.” Defs.’ Br. at 31. The cited administrative record excerpts do not support these assertions, but merely show that at least one of the SSA experts also participated in the 2007 Workshop and was lead author on a relevant study arising from that workshop. This revelation is neither surprising nor meaningful, and it does nothing to counter Plaintiffs’ argument that Defendants arbitrarily defined the foreseeable future by solely relying on experts’ subjective predictions and did not explain why it was not also utilizing available modeling data that had been previously developed.

CONCLUSION

For the foregoing reasons, as well as those contained in Plaintiffs’ opening brief, Plaintiffs respectfully ask the Court to rule in their favor on their motion for summary judgment,

vacate and remand FWS's not-warranted finding, and order FWS to issue a new 12-month finding for the eastern hellbender within one year of this Court's order.

Respectfully Submitted this 3rd day of March, 2023.

s/ Brian Segee

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CERTIFICATE OF SERVICE

I hereby certify that on March 3, 2023, I served the foregoing via the Court's CM/ECF system, which will transmit a copy to all counsel of record.

s/ Brian Segee

Brian Segee